# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

DE SANTIS, Rita

Atty. Ref.:

Serial No. unknown

Group:

Filed: October 18, 2001

Examiner:

For: ANTIGEN PRESENTING CELLS, METHOD FOR THEIR PREPARATION AND

THEIR USE FOR CANCER VACCINES

\* \* \* \* \* \* \* \* \*

October 18, 2001

Assistant Commissioner for Patents Washington, DC 20231

Sir:

# PRELIMINARY AMENDMENT

Please amend the above-identified application as follows:

# IN THE CLAIMS

Please substitute the following amended claims for corresponding claims previously presented. A copy of the amended claims showing current revisions is attached.

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- 5. A method according to claim 1, wherein said cells are immune cells.
- 6. A method according to claim 1, wherein said cells are non-immune cells.
- 7. A method according to claim 1, wherein said cells express shared immunodominant cancer antigens.
- 8. A method according to claim 1, wherein said cells are express shared not immunodominant cancer antigens.
- 9. A method according to claim 1, wherein said cells are Epstein-Barr virusimmortalized B-lymphoblastoid cell lines.
- 10. A method according to claim 1, wherein said cells are Pokeweed mitogen (PWM)-activated B-lymphocytes.
- 11. A method according to claim 1, wherein said cells are CD40 activated B-lymphocytes.
- 12. A method according to claim 1, wherein said cells are Phytohemagglutinin (PHA) + recombinant human interleukin-2 (rhIL-2)-activated PBMC.
- 13. A method according to claim 1, wherein said cells are Phytohemagglutinin (PHA) + recombinant human interleukin-2 (rhIL-2) + pokeweed mitogen (PWM)-activated PBMC.
- 14. A method according to claim 1, wherein said cells are dendritic cells, monocytes, macrophages.
- 15. A method according to claim 1, wherein said cells are CD34+ cells, fibroblasts, stem cells, fibroblasts and cheratinocytes.

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- 16. A method according to claim 1, wherein histone deacetylase inhibitors are used in step d).
- 17. A method according to claim 1, wherein said DNA hypomethylating agent is selected from 5-aza-cytidine or 5-aza-2'-deoxycytidine.
- 18. Cells obtainable by the method according to claim 1.
- 23. Use according to claim 19, wherein said cells are stored as reservoir of pooled antigens.
- 28. Vaccine according to claim 27, wherein the cells are used.
- 29. Vaccine according to claim 27, wherein cellular components are used.
- 31. An article of manufacture comprising a vaccine according to claim 25 and a pharmaceutical composition suitable for systemic administration of a hypomethylating agent.

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#### **REMARKS**

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page/s is/are captioned "Version With Markings To Show Changes Made."

Respectfully submitted,

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#### VERSION WITH MARKINGS TO SHOW CHANGES MADE

#### IN THE CLAIMS

- 5. A method according to any of claims 1-4, wherein said cells are immune cells.
- 6. A method according to any of claims 1-4, wherein said cells are non-immune cells.
- 7. A method according to any of-claims 1-6, wherein said cells express shared immunodominant cancer antigens.
- 8. A method according to any of claims 1-6, wherein said cells are express shared not immunodominant cancer antigens.
- 9. A method according to any of claims 1–5 and any of claims 7–8, wherein said cells are Epstein-Barr virus-immortalized B-lymphoblastoid cell lines.
- 10. A method according to any of claims 1–5 and any of claims 7–8, wherein said cells are Pokeweed mitogen (PWM)-activated B-lymphocytes.
- 11. A method according to any of claims 1–5 and any of claims 7–8, wherein said cells are CD40 activated B-lymphocytes.
- 12. A method according to any of-claims 1–5 and any of claims 7–8, wherein said cells are Phytohemagglutinin (PHA) + recombinant human interleukin-2 (rhIL-2)-activated PBMC.
- 13. A method according to any of claims 1–5 and any of claims 7–8, wherein said cells are Phytohemagglutinin (PHA) + recombinant human interleukin-2 (rhIL-2) + pokeweed mitogen (PWM)-activated PBMC.

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- 14. A method according to any of claims 1—4 and any of claims 6—8, wherein said cells are dendritic cells, monocytes, macrophages.
- 15. A method according to any of claims 1-4 and any of claims 6-8, wherein said cells are CD34+ cells, fibroblasts, stem cells, fibroblasts and cheratinocytes.
- 16. A method according to any of-claims 1–15, wherein histone deacetylase inhibitors are used in step d).
- 17. A method according to any of claim 1–16, wherein said DNA hypomethylating agent is selected from 5-aza-cytidine or 5-aza-2'-deoxycytidine.
- 18. Cells obtainable by the method according to any one of claims 1–17.
- 23. Use according to any of-claims 19-22, wherein said cells are stored as reservoir of pooled antigens.
- 28. Vaccine according to claim 27, wherein the cells are used as according to claim 23.
- 29. Vaccine according to claim 27-or 28, wherein cellular components according to claim 19-are used.
- 31. An article of manufacture comprising a vaccine according to any of claims 25–29 and a pharmaceutical composition suitable for systemic administration of a hypomethylating agent.